COMMON IMAGERY GROUND/SURFACE SYSTEM (CIGSS) ARCHITECTURE
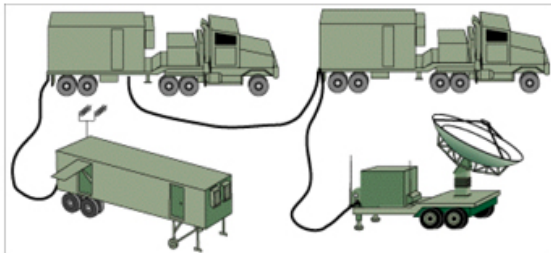
Joint ACAT IC Program

Total Number of Systems:	N/A
Total Program Cost (TY$):	N/A
Average Unit Cost (TY$):	N/A
Full-rate production:	N/A

Prime Contractor

Service dependent

SYSTEM DESCRIPTION & CONTRIBUTION TO JOINT VISION 2010

The Common Imagery Ground/Surface System (CIGSS) incorporates common components (e.g., processors and data links) and standards (e.g., file formats, communication protocols) for the near real-time receipt of imagery from a wide variety of airborne sensors and is also used to exchange imagery between ground and surface systems. Current systems; i.e., Joint Service Imagery Processing System (JSIPS), Tactical Exploitation Group, JSIPS-Navy, Enhanced Tactical Radar Correlator (ETRAC), Modernized Imagery Exploitation System, and Pacific Air Forces Integrated National Exploitation System, will migrate to CIGSS architecture through pre-planned product improvements. New imagery

systems such as the Army's Tactical Exploitation System will be developed to comply with the architecture.

CIGSS contributes to the *Joint Vision 2010* goal of achieving *information superiority* by supporting *dominant maneuver, precision engagement*, and *full-dimensional protection*. CIGSS contributes most directly to precision engagement by providing high fidelity target detail and accurate/timely target locations and battle damage assessment.

BACKGROUND INFORMATION

Until it was closed in FY98, the Defense Airborne Reconnaissance Office (DARO) was the overall executive agent of the CIGSS program. CIGSS evolved from JSIPS, an Air Force Electronic Systems Command program. In FY97, OSD C3I (A&T) directed DARO and DOT&E to create a Working Integrated Process Team to develop a draft CIGSS TEMP. DARO/OSD C3I authorized the Joint Interoperability Test Command (JITC) as the lead operational testing agency. The CIGSS TEMP will guide the evaluation of how well the CIGSS architecture satisfies the requirements stated in the CIGSS Capstone Requirements Document. With the closing of DARO, the National Imagery and Mapping Agency has assumed the responsibility for directing the development and publication of the CIGSS TEMP.

TEST & EVALUATION ACTIVITY

The CIGSS TEMP was signed on October 5, 1999. In FY99, JITC completed limited compliance-level certification on the following components: Dissemination Element version 2.2, Imagery Exploitation Support System version 4.1, and Common Imagery Processor version 3.3.2. Also, JITC will conduct five additional CIGSS compliance-level tests in 1QFY00. This compliance-level testing has been at the component or sub-system level. However, the goal is to conduct compliance testing in a joint interoperability environment. To go to the next level of testing will require all of the Services' support. There has been no compliance-level testing at the system level or between Service CIGSS systems. The National Imagery and Mapping Agency has funded JITC to conduct joint level testing in FY00. The Navy has also funded CIGSS migration testing in FY00.

TEST & EVALUATION ASSESSMENT

The CIGSS TEMP provides a T&E strategy for evaluating how well an architecture of interoperable imagery exploitation systems can provide enhanced intelligence support to Joint Task Force Commanders. Successful implementation of the T&E strategy will be dependent upon close cooperation of the Service operational test agencies and the system developers, as well as adequate developmental and operational testing of new systems prior to their participation in a joint exercise environment. JITC needs to plan for the evaluation of CIGSS architecture during joint field training exercises. Services still have the responsibility to conduct system level tests prior to the evaluation of joint architecture by JITC.